Patent claims

1. Duplexer,

- each with Rx-filters and Tx-filters made out of ceramic microwave resonators,
  - consisting of a ceramic base (GK) with internal metal-coated drill holes (RB), which reach from a head surface (SF) through the entire base up to the floor surface of the base on the opposite side of the head surface,
  - with an external metal coating (AM), which predominantly covers the surfaces of the base with the exception of the head surface,
  - in which a metallic shielding structure (ST) is provided, which features, at a distance from the head surface, a frontal head plate (SP) running parallel to this, an upper shielding clamp (OB) bearing on the topside of the base and at least one lower shielding clamp (UB) reaching under the base,
  - whereby the upper and the lower shielding clamp each run into the absorbing upper and lower depressions in the surface of the base
  - in which the head plate (SP) is extended on both lateral, outer ends and runs in lateral shielding clamps (SB), which laterally embrace the duplexer and are located in lateral cavities of the base(s) (GK).

2. Duplexer according to claim 1,

in which a monolithic base (GK) is provided, in which the Rx-filter and Tx-filter is featured,

in which the upper shielding clamp (OB) shows a longitudinal section (LA) running parallel to the longitudinal axis of the drill holes, which is narrow in design in relation to the width of the base.

3. Duplexer according to claim 1,

in which the Rx-filter and Tx-filter are performed in bases (GK) separated from one another, and whereby the upper shielding clamp (OB) features a longitudinal section (LA) running parallel to the longitudinal axis of the drill holes, which is narrow in design in relation to the width of the base, which is centrally located above the separate joint and covers part of the topsides of both bases.

4. Duplexer according to one of the claims 1 to 3,

in which the shielding structure (ST) features two lower shielding clamps (UB) that form a π-shaped structure together with the head plate (SP) and feature shortened ends compared to the length of the base (GK), which reach under the bases.

5. Duplexer according to one of the claims 1 to 4,

in which the upper shielding clamp (OB) only stretches across part of the length of the base (GK).

6. Duplexer according to one of the claims 3 to 5,

in which the Rx-filter and the Tx-filter are performed in bases (GK) separated from one another, which are arranged at a short distance from one another.

7. Duplexer according to one of the claims 1 to 6,

in which the shielding structure (ST) is connected to the bases by means of mechanical locking, bonding or soldering.

8. Duplexer according to one of the claims 1 to 7,

in which at least one element from the head plate (SP) and lateral shielding clamps (SB) show a height h_s that is lower than the height h_G of the base.

9. Duplexer according to claim 8,

in which the head plate (SP) is made of a metallic strip with a width remaining constant, the ends of which are bent backwards on both sides and which form lateral shielding clamps.

10. Duplexer according to one of the claims 1 to 9,

in which the head plate (SP) is made based on the crossbeam (QA) and the upper shielding clamp (OB) from the foot of a T-shaped steel unit, whereby the crossbeam partially bears on the topside of the base (GK) and is bent on the front around the head surface (SF) but only at a very short distance from the latter.